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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,369	04/23/2001	Francis J. Binder	CMD 215X	3826
22222	7590	10/24/2003	EXAMINER	
GEORGE R CORRIGAN 5 BRIARCLIFF COURT APPLETON, WI 54915			SAINT SURIN, JACQUES M	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/840,369	BINDER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jacques M Saint-Surin	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 July 2003.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-48 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)                  4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                  5) Notice of Informal Patent Application (PTO-152)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.                  6) Other:

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is responsive to the communication of 07/31/03.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-48 have been considered but are moot in view of the new ground(s) of rejection.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

4. Claims 1, 3, 15-16, 18, 24-25, 32-33, 43 and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Takaoka et al (US Patent 6,474,141).

Regarding claim 1, Takaoka ('141) discloses an apparatus for detecting a seal on a film (seal inspecting machine 1, see: col. 5, lines 30-31 and Figs. 1-2), comprising:

a force transmitter (presser unit 3) disposed to transmit a force from the film (bagged and sealed products G, see: col. 5, line 34);

a force sensor (servo motor 32 capable of detecting a reactive force acting on the presser unit or capable of detecting a displacement of the presser unit, said presser unit being driven by the servo motor in the direction close towards and away from the bagged product see: col. 22, lines 22-27), disposed to receive the transmitted force and provide a force signal in response thereto; and

a controller (CPU 6 for controlling the overall operation of the seal machine, see: col. 8, lines 27-29), disposed to receive the force signal and provide a seal signal in

response thereto (the CPU also controls the drive of the servo motor 32 based on an signal inputted thereto from the product sensor 5, see: col. 8, lines 42-44).

Regarding claim 15/16, it is a method claim that recites the steps for performing the functions of the apparatus claim 1.

Regarding claim 24/25, it is a means-plus function claim that recites the limitations of claim 1. As discussed above, it is rejected for the reasons set forth for claim 1.

Regarding claim 32, as discussed above, it is rejected for the reasons set forth for claim 1. Furthermore, Takakoa et al. discloses as shown in FIG. 8, the seal inspecting machine now identified by 41 is positioned between an upstream transport conveyor C3 for successively transporting the bagged and sealed products G and a downstream transport conveyor C4 for successively transporting the bagged and sealed products G, see: col. 14, lines 25-29.

Regarding claim 43, as discussed above, it is rejected for the reasons set forth for claim 1. Furthermore, Takakoa et al. ('141) discloses the seal inspecting machine As shown in FIG. 8, the seal inspecting machine now identified by 41 is positioned between an upstream transport conveyor C3 for successively transporting the bagged and sealed products G and a downstream transport conveyor C4 for successively transporting the bagged and sealed products G towards the next subsequent processing station and is so operable as to receive the bagged and sealed products G one at a time from the upstream transport conveyor C3, then as to perform a seal inspecting operation on the bagged and sealed product G and finally as to deliver the

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inspected bagged product G onto the downstream transport conveyor C4 (see: col. 14, lines 25-36).

Regarding claims 3, 18, 27, 33 and 45, Takaoka discloses sensor 5 that is inherently a mechanical sensor.

5. Claims 2, 4, 17, 19, 26, 28 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka et al. (US Patent 6,474,141).

These claims differ from Takaoka et al. by specifically reciting acoustic and vibration sensors. However, it is known that various types of acoustical, electrical or optical sensors can alternately perform the same function based on a different mode of action for sensing a manifestation associated through a sample, seal, etc. It would be obvious to one having ordinary skill in the art at the time of the invention to be motivated to recognize the advantages of using the above sensors for performing the desired functions in a well known manner.

6. Claims 12-14, 21-23, 29-31 and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takaoka et al. (US Patent 6,474,141) in view of McDaniel et al. (US Patent 5,285,678).

These claims differ from Takakoa by reciting an amplitude comparator that receives the force signal and an amplitude threshold. McDaniel et al. ('678) discloses threshold sensing device which instructs automated processing to divert container into a reject conveyor system, see: col. 29, lines 58-62. It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize in Takakoa the threshold

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sensing device of McDaniel because it would perform effectively the amplitude comparison and threshold in a well known manner.

7. Claims 1, 5, 7-11, 15, 24, 32, 34-37 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thalmann (US Patent 6,131,452) in view of Takaoka et al. (US Patent 6,474,141).

Regarding claim 1, Thalmann ('452) discloses a force transmitter (contact sensor 2, see: Fig. 1 and col. 3, line 36) disposed to transmit a force from the film (fabric 1, see: Fig. 1 and col. 3, line 33), wherein the force is created when the film moves with respect to the force transmitter;

a force sensor (vibration pickup or sensor 4, see: Fig. 1 and col. 3, lines 37-38 and 62)) disposed to receive the transmitted force and provide a force signal in response thereto; and

a controller (amplifier 22, see: Fig. 4 and col. 3, line 64), disposed to receive the force signal. Although Thalmann discloses vibration sensor for measuring the regular and the irregular deflections of the contact sensor to form a sensor motion measurement signal for subsequent analysis and signaling of the structural faults, it does not specifically disclose or suggest provide a seal signal in response thereto.

Takaoka et al. ('141) discloses seal inspecting machine for inspecting bagged products to determine the presence or absence of a seal abnormality in each bagged product (col. 3, lines 3-5). Takaoka further discloses a CPU 6 also controls the drive of the servo motor 32 based on an signal inputted thereto from the product sensor 5(col. 8,

lines 42-44). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize in Thalmann the techniques of Takaoka because seal inspecting machine is furthermore provided with a product characteristic detecting means for automatically detecting characteristics of each of the bagged products delivered one at a time before seal inspection, and a control parameter setting means for setting the control parameters based on the characteristics of each of the bagged product detected by the detecting means thereby the seal inspection to determine the presence or absence of a seal abnormality in the bagged product can efficiently carried out with inexpensive facilities.

Regarding claims 5, 7-11, 20, 34-37, Thalmann discloses the measured value pickup in the form of spacing or distance measuring sensor is secured in such a way to the rigid part of the mounting in the region of the end of the leaf spring that the end of the contact sensor moves in the region of the distance measuring sensor (see: col. 3, lines 1-7 of Thalmann).

Regarding claims 6 and 35, Thalmann discloses commercially available optical, magnetic, inductive or capacitive pickups can be considered for the distance measuring sensors (see: col. 3, lines 5-7). Thalmann further discloses to perform the measurement of the motion by means of an acoustical pickup (col. 2, lines 8-10). Thus, the force sensor of Thallmann meets the limitations of piezoelectric sensor.

8. Claims 1-11, 14-20, 24-28 and 32-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Huben et al. (US Patent 5,861,078) in view of Thallman (US Patent 6,131,452).

Regarding claims 1, 15, 24, 32 and 43, Huben et al. ('078) discloses a force transmitter (roller 37 or 36), a force sensor (seal sensor near the film path, see: col. 4, line 12) and a controller (seal sensor provides a seal signal indicative of a seal location and controller controls the location of the film on which downstream processor acts in response to the seal signal, see: col. 4, lines 8-17). However, Huben does not specifically disclose or suggest a force created by the moving film. Fig. 1 of Thallman how contact sensor is urged into engagement with the threads in the flat textile material (see abstract). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize in Huben the techniques of Thalmann because as required by Thalman the force would be created from the film in order for the transmitter to generate the force signal which would be detected, processed and analyzed for evaluating the output signal in a well known manner.

Regarding claim 15/16, it is a method claim that recites the steps for performing the functions of the apparatus claim. Regarding claim 24, it is a means-plus-function claim that recites the means for performing the functions of the apparatus of claim 1.

Regarding claims 3, 6, 18, 27, 33 and 35, Huben et al. ('078) discloses detector 23 such as an electric eye or magnetic sensor. Regarding claims 5 and 34, Huben ('078) discloses a blanket 32 is mounted on rollers 34, 35, 36 and 37 for surrounding a portion of drum 28 in such a way that the film 11 passes between blanket 32 and drum 28 while seals are being formed, see: col. 6, lines 5-9.

Regarding claims 7-11, 20-23, 29-31 and 36-38, Huben et al. discloses a rod 43 causes rollers 34 and 35 to move the dotted line position when the drum diameter

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decreases, thereby maintaining tension of blanket 32 against drum 28, see: col. 6, lines 14-17.

Regarding claim 39, Huben et al. (078) discloses controller 15 include analog circuits or any other device that provides the proper outputs in response to the inputs, see: col. 7, lines 46-49).

Regarding claims 40-42, Huben et al. discloses a downstream perforator/cutting station for forming a perforation on the film with respect to the location of the seal and the perforation is properly registered to the seal by sensing the seal location directly, see: abstract.

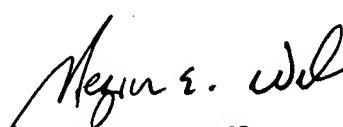
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M Saint-Surin whose telephone number is (703) 308-3698. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

  
Jacques M. Saint-Surin  
October 18, 2003

  
HEZRON WILLIAMS  
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